#### APPENDIX F

# ASSOCIATED SYMBOLOGY INFORMATION SPECIAL SYMBOL SETS

#### F.1 GENERAL

F.1.1 <u>Scope</u>. This appendix provides for special symbol sets from operational domains outside the current realm of MIL-STD-2525A. Although these domains are outside the scope of the current document, it is beneficial to present the information to users of this standard as a separate appendix. This appendix is not a mandatory part of this standard. The information contained herein is intended for guidance.

#### F.2 APPLICABLE DOCUMENTS

This section is not applicable to this appendix.

#### F.3 DEFINITIONS

The definitions in Section 3 of this standard apply to this appendix.

#### F.4 WEATHER SYMBOLOGY

The following graphics are some of those more commonly used to depict weather and should only be used on weather-related displays. These graphics must be implemented as a separate layer or classification since they may conflict with other symbols or icons used in the warrior icon set. These graphics are based on approved symbols and icons from the World Meteorological Organization.

TABLE F-I. Weather graphics.

| DESCRIPTION      | HIERARCHY | WEATHER GRAPHIC |
|------------------|-----------|-----------------|
|                  | SYMBOL ID |                 |
| w                | 3.X       |                 |
| Weather          | W*A*      |                 |
|                  | 3.X.1     |                 |
| Pressure Systems | W*A*P**** |                 |

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TABLE F-I. Weather graphics (cont'd).

| HIERARCHY        |  |
|------------------|--|
| SYMBOL ID        | WEATHER GRAPHIC  |
| 3.X.1.1          |  |
| W*A*PL<br>*****  | (Red)  |
| 3.X.1.2          |  |
| W*A*PH           | H  |
|                  | (Blue)   |
| 3.X.1.3          |  |
| W*A*PF<br>****   |  |
| 3.X.1.3.1        |  |
|                  |  |
| W*A*PFC<br>***** |  |
|                  | 3.X.1.1  W*A*PL *****  3.X.1.2  W*A*PH *****  3.X.1.3  W*A*PF *****  3.X.1.3.1 |

# APPENDIX F

TABLE F-I. Weather graphics (cont'd).

| DEG CDEDITION  | HIERARCHY         |                 |
|--|-------------------|-----------------|
| DESCRIPTION  | SYMBOL ID         | WEATHER GRAPHIC |
| Upper Cold Front Occurs when discontinuity at the forward edge of an advancing cold air mass is displacing warmer air in its path and the two air masses intersect above ground level. | 3.X.1.3.1.1       |                 |
|  | W*A*PFCU *****    | (Blue)          |
| Warm Front The discontinuity at the forward edge of an advancing warm air mass that is displacing cooler air in its path.  | 3.X.1.3.2         |                 |
|  | W*A*PFW<br>****   | (Red)           |
| Upper Warm Front Occurs when discontinuity at the forward edge of an advancing warm air mass is displacing cooler air in its path and the two air masses intersect above ground level. | 3.X.1.3.2.1       |                 |
|  | W*A*PFWU<br>***** | (Red)           |
| Occluded Front  The line along which a cold front has overtaken a warm front at ground level.  | 3.X.1.3.3         |                 |
|  | W*A*PFO<br>*****  | (Purple)        |

# APPENDIX F

TABLE F-I. Weather graphics (cont'd).

|   | HIERARCHY        |                 |
|---|------------------|-----------------|
| DESCRIPTION   | SYMBOL ID        | WEATHER GRAPHIC |
| Stationary Front A situation in which the surface position of a front does not move; the flow on either side of such a boundary is nearly parallel to the position of the front.  | 3.X.1.3.4        |                 |
|   | W*A*PFS<br>***** | (Blue/Red)      |
| Lines   | 3.X.1.4          |                 |
|   | W*A*PX<br>****   |                 |
| Trough Line An elongated region of low atmospheric pressure.  | 3.X.1.4.1        |                 |
|   | W*A*PXT<br>****  | (Black)         |
| Ridge Line An elongated region of high atmospheric pressure.  | 3.X.1.4.2        |                 |
|   | W*A*PXR<br>****  | (Black)         |
| Squall Line A line of high winds and thunderstorms in convectively unstable air, an instability line (of non-frontal nature); it may be generated by a cold front. Such a line may be some hundreds of miles in length and is sometimes called a pseudofront. It is associated with line thunderstorms, shear line of which are the squall lines, | 3.X.1.4.3        |                 |
| accompanied by strong gusts, hail, rain and sometimes tornadoes, but well in advance of the cold front (if present).  | W*A*PXS<br>****  | (Black)         |

# APPENDIX F

TABLE F-I. Weather graphics (cont'd).

| DEG CDEDWON  | HIERARCHY       |                 |
|--|-----------------|-----------------|
| DESCRIPTION  | SYMBOL ID       | WEATHER GRAPHIC |
| Turbulence Turbulence is a transitory atmospheric condition which has varying effects on aircraft operations. It is a serious hazard to pilots that may occur without warning. | 3.X.2           |                 |
|  | W*A*T****       |                 |
| Light Turbulence Description is dependent on associated aircraft type.   | 3.X.2.1         |                 |
|  | W*A*TL<br>***** | (Black)         |
| Moderate Turbulence Description is dependent on associated aircraft type.  | 3.X.2.2         |                 |
|  | W*A*TM<br>***** | (Black)         |
| Severe Turbulence Description is dependent on associated aircraft type.  | 3.X.2.3         |                 |
|  | W*A*TS<br>***** | (Black)         |

# APPENDIX F

TABLE F-I. Weather graphics (cont'd).

| DUGGDVDTVAV   | HIERARCHY            |                 |
|---|----------------------|-----------------|
| DESCRIPTION   | SYMBOL ID            | WEATHER GRAPHIC |
| Extreme Turbulence Description is dependent on associated aircraft type.  | 3.X.2.4              |                 |
|   | W*A*TE<br>*****      | (Black)         |
| Icing   | 3.X.3                |                 |
|   | W*A*I****            |                 |
| Clear Icing Glossy, clear, or translucent ice formed by the relatively slow freezing of large supercooled droplets. The droplets spread out over the airframe surface before completely freezing. | 3.X.3.1              |                 |
|   | W*A*IC<br>****       |                 |
| Light Clear Icing Description is dependent on associated aircraft type.   | 3.X.3.1.1            |                 |
|   | W*A*ICL<br>*****     | (Black)         |
| Moderate Clear Icing Description is dependent on associated aircraft type.  | 3.X.3.1.2<br>W*A*ICM |                 |
|   | *****                | (Black)         |

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TABLE F-I. Weather graphics (cont'd).

| PERCENTENAN  | HIERARCHY                     | WEATHER OR A PING |
|--|-------------------------------|-------------------|
| DESCRIPTION  | SYMBOL ID                     | WEATHER GRAPHIC   |
| Severe Clear Icing Description is dependent on associated aircraft type.   | 3.X.3.1.3<br>W*A*ICS<br>***** | (Black)           |
| Rime Icing Rough, milky opaque ice formed by the instantaneous freezing of small supercooled droplets which trap air within the ice as they strike the aircraft. | 3.X.3.2                       |                   |
|  | W*A*IR<br>****                |                   |
| Light Rime Icing Description is dependent on associated aircraft type.   | 3.X.3.2.1<br>W*A*IRL          |                   |
|  | ****                          | (Black)           |
| Moderate Rime Icing Description is dependent on associated aircraft type.  | 3.X.3.2.2<br>W*A*IRM *****    | (Black)           |

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TABLE F-I. Weather graphics (cont'd).

| DEG COMPONED.   | HIERARCHY                     |                 |
|---|-------------------------------|-----------------|
| DESCRIPTION   | SYMBOL ID                     | WEATHER GRAPHIC |
| Severe Rime Icing Description is dependent on associated aircraft type.                                       | 3.X.3.2.3<br>W*A*IRS<br>***** | (Black)         |
| Mixed Icing A hard rough conglomerate of ice which can cause very rough accumulation and severe loss of lift. | 3.X.3.3                       |                 |
|   | W*A*IM<br>****                |                 |
| Light Mixed Icing Description is dependent on associated aircraft type.                                       | 3.X.3.3.1<br>W*A*IML<br>***** | (Black)         |
| Moderate Mixed Icing Description is dependent on associated aircraft type.                                    | 3.X.3.3.2<br>W*A*IMM *****    | (Black)         |

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TABLE F-I. Weather graphics (cont'd).

|   | HIERARCHY                     |                 |
|---|-------------------------------|-----------------|
| DESCRIPTION   | SYMBOL ID                     | WEATHER GRAPHIC |
| Severe Mixed Icing Description is dependent on associated aircraft type.  | 3.X.3.3.3<br>W*A*IMS<br>***** | (Black)         |
| Wind Barb Used, in different variations, to represent wind speeds.  | 3.X.4                         |                 |
|   | W*A*W<br>****                 | (Black)         |
| Jet Stream A narrow belt of strong winds, with speeds of 50 to 200 knots, in the upper troposphere. In the northern Hemisphere these winds usually have a westerly component. | 3.X.4.1                       |                 |
|   | W*A*WJ<br>*****               | (Purple)        |
| Flight Rules  | 3.X.5<br>W*A*F****            |                 |
| Instrument Ceiling Evaluation of ceiling height by cloud measuring equipment.   | 3.X.5.1                       |                 |
|   | W*A*FI****                    | (Red)           |

# APPENDIX F

TABLE F-I. Weather graphics (cont'd).

|   | HIERARCHY       |                 |
|---|-----------------|-----------------|
| DESCRIPTION   | SYMBOL ID       | WEATHER GRAPHIC |
| Visual Ceiling The height above the earth's surface of the lowest (thin or opaque) layer reported as broken (5-7 oktas) or overcast (8 oktas), or the vertical visibility into an indefinite ceiling. | 3.X.5.2         |                 |
|   | W*A*FV<br>****  | (Blue)          |
| Coverage Symbols  | 3.X.6           |                 |
|   | W*A*C           |                 |
| Clear Sky (SKC) The absence of layers of clouds or other obscuring phenomena.   | 3.X.6.1         |                 |
|   | W*A*CC<br>***** | (Black)         |
| Scattered Sky (SCT) A summation sky cover of three-eights through four-eights.  | 3.X.6.2         |                 |
|   | W*A*CS<br>****  | (Black)         |
| Broken Sky (BKN) A summation sky cover of five-eights through less than eight-eighths.  | 3.X.6.3         |                 |
|   | W*A*CB<br>***** | (Black)         |

# APPENDIX F

TABLE F-I. Weather graphics (cont'd).

|   | HIERARCHY          |                 |
|---|--------------------|-----------------|
| DESCRIPTION   | SYMBOL ID          | WEATHER GRAPHIC |
| Overcast with Breaks A condition in which an overcast layer has discernible break(s) totaling less than 1 okta.   | 3.X.6.4            |                 |
|   | W*A*CW<br>*****    | (Black)         |
| Overcast (OVC) A summation sky cover of eight-eighths.  | 3.X.6.5            |                 |
|   | W*A*CO<br>****     | (Black)         |
| Sky Obscured or Partially Obscured  1. Obscured - A condition in which surface-based obscuring phenomena (e.g., fog, rain, snow) are hiding eight-eighths of the sky or higher layers. The terms "obscuration" and "indefinite ceiling" may also be used in relation to this sky condition. | 3.X.6.6            |                 |
| <ol> <li>Partially Obscured - A condition in which surface-based obscuring phenomena<br/>are hiding at least one-eighth, but less than eight-eighths, of the sky or higher layers.<br/>The term "partial obscuration" may also be used in relation to this sky condition.</li> </ol>        | W*A*CP<br>*****    | (Black)         |
| Precipitation   | 3.X.7<br>W*A*P**** |                 |
| Rain (RA) Precipitation, either in the form of drops larger than 0.02 inch (0.5 mm), or smaller drops, which in contrast to drizzle, are widely separated.  | 3.X.7.1            |                 |
|   | W*A*PR<br>*****    | (Green)         |

# APPENDIX F

TABLE F-I. Weather graphics (cont'd).

| DESCRIPTION   | HIERARCHY         | WEATHER GRAPHIC                        |
|---|-------------------|--|
| 2250211 2101  | SYMBOL ID         | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| Rain Shower The rain changes intensity or starts and stops abruptly. These showers fall exclusively from cumuliform clouds.   | 3.X.7.1.1         |  |
|   | W*A*PRS<br>*****  | (Green)                                |
| Freezing Rain (FZRA) Rain that freezes on impact with the ground, with objects in flight, or with objects on the ground. Produces glaze (clear) ice.  | 3.X.7.1.2         |  |
|   | W*A*PRF<br>*****  | (Red)                                  |
| Drizzle (DZ) Fairly uniform precipitation composed exclusively of fine drops (diameter less than 0.02 inch or 0.5 mm) very close together. Drizzle appears to float while following air currents although, unlike fog droplets, it falls to the ground. It usually falls from low stratus clouds and is frequently accompanied by low visibility and fog. | 3.X.7.1.3         |  |
|   | W*A*PRD<br>*****  | (Green)                                |
| Freezing Drizzle (FZDZ) Drizzle which freezes upon impact with the ground, with objects in flight, or with objects on the ground. Produces glaze (clear) ice.   | 3.X.7.1.3.1       | 99)                                    |
|   | W*A*PRDF<br>***** | (Red)                                  |

# APPENDIX F

TABLE F-I. Weather graphics (cont'd).

|  | HIERARCHY        |                 |
|--|------------------|-----------------|
| DESCRIPTION  | SYMBOL ID        | WEATHER GRAPHIC |
| Snow (SN) Precipitation of snow crystals, mostly branched in the form of six-pointed stars, many times clustered to form snowflakes.   | 3.X.7.2          |                 |
|  | W*A*PS<br>*****  | (Green)         |
| Snow Showers Snow changes intensity or starts and stops abruptly. These showers fall exclusively from cumuliform clouds.   | 3.X.7.2.1        |                 |
|  | W*A*PSS***       | (Green)         |
| Snow Grains (SG) Precipitation of very small, white, opaque particles of ice; the solid equivalent of drizzle. The grains are fairly flat or elongated. Diameters are generally less than .04 inch (1mm). When the grains hit hard ground, they do not bounce or shatter. They usually fall in very small quantities from stratus clouds (or occasionally from fog). | 3.X.7.2.2        |                 |
|  | W*A*PSG<br>***** | (Green)         |
| Hail Precipitation in the form of small balls or other pieces of ice falling separately or frozen together in irregular lumps. Hailstones consist of alternate opaque and clear layers of ice in most cases. Hail is normally associated with thunderstorms and surface temperatures above freezing.   | 3.X.7.3          |                 |
|  | W*A*PH<br>*****  | (Red)           |

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Note: White filled icon represents white opaque filled icon

que filled icon

# APPENDIX F

TABLE F-I. Weather graphics (cont'd).

|  | HIERARCHY             |                       |  |
|--|-----------------------|-----------------------|--|
| DESCRIPTION  | SYMBOL ID             | WEATHER GRAPHIC       |  |
| Ice Pellets (PE) Precipitation of transparent or translucent pellets of ice, which are round or irregular, rarely conical, and have a diameter of 0.2 inch (5 mm) or less. The pellets usually rebound when striking hard ground and make a sound on impact. They are two main types. Hard grains of ice consisting of frozen raindrops or melted and refrozen snowflakes and pellets of snow encased in a thin layer of ice formed from the freezing, either of droplets intercepted by the pellets, or of water resulting from the partial melting of the pellets. | 3.X.7.4<br>W*A*PI**** | (Green)               |  |
| Ice Crystals (IC)  A fall of unbranched (snow crystals are branched) ice crystals in the form of needles, columns, or plates. They are termed "ice prisms" in Synoptic observations. Ice crystals are often so tiny they seem to be suspended in the air. They may fall from a cloud or from clear air. The crystals are visible mainly when they glitter in the sunshine or other bright light (diamond dust), thus producing a luminous pillar or other optical phenomena. This hydrometeor (rarely more than the lightest   | 3.X.7.5<br>W*A*PC     | $\longleftrightarrow$ |  |
| precipitation), which is frequent in polar regions, occurs only at very low temperatures in stable air masses.   | ****                  |                       |  |
| Storms   | 3.X.8                 |                       |  |
|  | W*A*S****             |                       |  |
| Thunderstorm (TS) A local storm produced by a cumulonimbus cloud accompanied by strong gusty winds, vertical currents at higher levels, and heavy precipitation with lightning and/or thunder. It is usually a few miles in both horizontal and vertical dimensions, extending from the ground up to 20,000, 40,000, or even 60,000 feet in the most vigorous examples.  | 3.X.8.1               |                       |  |
| vigorous examples.   | W*A*ST<br>*****       | (Red)                 |  |
| Thunderstorm (TS) and Rain (RA) A local storm produced by a cumulonimbus cloud accompanied by lightning and/or thunder and precipitation, either in the form of drops larger than 0.02 inch (0.5 mm), or smaller drops, which in contrast to drizzle, are widely separated.  | 3.X.8.1.1             |                       |  |
|  | W*A*STR<br>*****      | (Red)                 |  |

# APPENDIX F

TABLE F-I. Weather graphics (cont'd).

|   | HIERARCHY        | WEATHER OR I DAY |  |
|---|------------------|------------------|--|
| DESCRIPTION   | SYMBOL ID        | WEATHER GRAPHIC  |  |
| Funnel Cloud (FC) / Tornado/Waterspout  1. Funnel Cloud (FC) - A violent, rotating column of air which does not touch the ground, usually appended to a cumulonimbus cloud. Also called a tuba.   | 3.X.8.1.2        |                  |  |
| <ol> <li>Tornado - (+FC) A violent, rotating column of air touching the ground; funnel cloud touching the ground. A tornado nearly always starts as a funnel cloud (FC) and is accompanied by a loud, roaring noise.</li> <li>Waterspout (+FC) - A violent, rotating column of air that forms over a body of water, such as a bay, gulf, or lake, and touches the water surface; a tornado or funnel cloud that touches a body of water.</li> </ol> | W*A*STF<br>***** | (Red)            |  |
| Lightning (LTG) A luminous manifestation accompanying a sudden electrical discharge which takes   | 3.X.8.1.3        |                  |  |
| place from or inside a cloud or, less often, from high structures on the ground, or from mountains.   | W*A*STL<br>****  |                  |  |
|   |                  | A                |  |
|   |                  | (Red)            |  |
| Storm Systems   | 3.X.8.2          |                  |  |
|   | W*A*SS<br>****   |                  |  |
| <b>Tropical Storm</b> A tropical cyclone having winds ranging from approximately 48 to 121 kilometers or 30 to 75 miles per hour.   | 3.X.8.2.1        |                  |  |
|   | W*A*SST<br>***** | (Red)            |  |

# APPENDIX F

TABLE F-I. Weather graphics (cont'd).

| DESCRIPTION   | HIERARCHY<br>SYMBOL ID | WEATHER GRAPHIC |
|---|------------------------|-----------------|
| Hurricane Tropical cyclones, especially in the West Indies, in which the wind velocity equals or exceeds 64 knots (73 mph).   | 3.X.8.2.2              |                 |
|   | W*A*SSH<br>*****       | (Red)           |
| Obstructions To Visibility  | 3.X.9                  |                 |
|   | W*A*O<br>****          |                 |
| Blowing Snow (BLSN) Snow particles raised and stirred violently by the wind to moderate or great heights. Prevailing visibility is reduced to less than 7 miles (9,999 meters) and the sky may become obscured when the particles are raised to great heights.  | 3.X.9.1                | <b>—</b>        |
|   | W*A*OS<br>*****        | (Green)         |
| Fog (FG) A visible aggregate of minute water particles (droplets) which are based on the Earth's surface, extends vertically, and reduces horizontal visibility to less than 5/8 mile (1,000 meters). When fog is further described by the descriptors BC, MI, or PR, the prevailing visibility may be equal to or greater than 5/8 mile (1,000 meters.         | 3.X.9.2                |                 |
| Unlike drizzle, FG does not fall to the ground.   | W*A*OF<br>*****        | (Yellow)        |
| Freezing Fog (FZFG) A suspension of numerous minute ice crystals in the air, or water droplets at temperatures below 0 degrees Celsius, based at the Earth's surface and extending vertically to greater than 6 feet (1.8 meters). FZFG reduces prevailing visibility to less than 5/8 mile (1000 meters) and, unlike drizzle, does not fall to the ground. The | 3.X.9.2.1              |                 |
| water droplets may freeze upon contact with exposed objects to form a coating of rime or glaze and it can occur even though the air temperature is above freezing. The water droplets may freeze upon contact with exposed objects to form a coating of rime or glaze. Also called Ice Fog.   | W*A*OFF<br>*****       | (Yellow)        |

TABLE F-I. Weather graphics (cont'd).

|   | HIERARCHY                  |                 |  |
|---|----------------------------|-----------------|--|
| DESCRIPTION   | SYMBOL ID                  | WEATHER GRAPHIC |  |
| <ol> <li>Dust or Sand Storm</li> <li>Duststorm (DS). An unusual, frequently severe weather condition characterized by strong winds and dust-filled air over an extensive area. Report a duststorm if the prevailing visibility is reduced to less than 5/8 miles (1,000 meters), but not less than 5/16 miles (500 meters). Report a heavy (severe) duststorm (+DS) if the visibility is reduced to less than 5/16 miles (500 meters).</li> <li>Sandstorm (SS). Particles of sand ranging in diameter from 0.008 inches to 1 millimeter carried aloft by a strong wind. The sand particles are mostly confined to the lowest ten feet, and rarely rise more than fifty feet above the ground. A sandstorm is reported if the prevailing visibility is reduced to less than 5/8 miles (1,000 meters), but not less than 5/16 miles (500 meters). Report a heavy (severe) sandstorm (+SS) if the visibility is reduced to less than 5/16 miles (500 meters).</li> </ol> | 3.X.9.3<br>W*A*OT<br>***** | (Brown)         |  |
| Dust Devil Well-developed dust/sand whirls (PO). An ensemble of particles of dust or sand, sometimes accompanied by small litter, raised from the ground in the form of a whirling column of varying height with a small diameter and an approximately vertical axis. Reported regardless of the visibility.  | 3.X.9.4                    |                 |  |
|   | W*A*OD<br>*****            | (Brown)         |  |
| Smoke (FU) A suspension in the air of small particles produced by combustion. A transition to haze may occur when smoke particles have traveled great distances (25 to 100 miles or 40 to 160 kilometers or more) and when the larger particles have settled out and the remaining particles have become widely scattered through the atmosphere. When  | 3.X.9.5                    |                 |  |
| viewed through smoke, the disk of the sun at sunrise and sunset appears very red.  The disk may have an orange tinge when the sun is above the horizon. Evenly distributed smoke from distant sources generally has a light grayish or bluish appearance.   | W*A*OK<br>*****            | (Brown)         |  |
| Haze (HZ) A suspension in the air of extremely small, dry particles invisible to the naked eye and sufficiently numerous to give the air an opalescent appearance. This phenomenon resembles a uniform veil over the landscape and subdues all colors. Dark objects viewed through this veil tend to have a bluish tinge while bright objects,  | 3.X.9.6                    |                 |  |
| such as the sun or distant lights, tend to have a dirty yellow or reddish hue. When haze is present and the sun is well above the horizon, its light may have a peculiar silvery tinge. Haze particles may be composed of a variety of substances; e.g., dust, salt, residue from distant fires or volcanoes, pollen, etc., which generally are well diffused through the atmosphere.   | W*A*OH<br>*****            | (Brown)         |  |

TABLE F-I. Weather graphics (cont'd).

| DESCRIPTION  | HIERARCHY                  | WEATHER OR A RUIG |
|--|----------------------------|-------------------|
| DESCRIPTION  | SYMBOL ID                  | WEATHER GRAPHIC   |
| Blowing Dust or Sand Dust or sand raised by the wind to a height of 6 feet (1.8 meters) or more. | 3.X.9.7<br>W*A*OB<br>***** | (Brown)           |

#### APPENDIX F

#### F.5 SIGNALS INTELLIGENCE (SIGINT) SYMBOLOGY

The following graphics are some of those more commonly used to depict signals intelligence and should only be used on SIGINT-related displays. These graphics must be implemented as a separate layer or classification since they may conflict with other symbols or icons used in the warrior icon set. These graphcis are based on approved symbols and icons from the SIGINT community.

TABLE F-II. Signals Intelligence (SIGINT) graphics.

| DESCRIPTION   | HIERARCHY   | F<br>R<br>A | UNKNOWN         | FRIEND          | NEUTRAL               | HOSTILE         |
|---|-------------|-------------|-----------------|-----------------|-----------------------|-----------------|
|   | SYMBOL ID   | M<br>E      | SYM-ID          | SYM-ID          | SYM-ID                | SYM-ID          |
| SIGNALS INTELLIGENCE  | 4.X         |             |                 |                 |                       |                 |
|   |             |             |                 |                 |                       |                 |
| SPACE TRACK   | 4.X.1       |             |                 |                 |                       |                 |
|   |             |             | IUP*<br>****    | IFP*<br>****    | INP*<br>****          | IHP*<br>****    |
| SPACE TRACK   | 4.X.1.1     |             |                 |                 |                       |                 |
| SIGNAL INTERCEPT  |             |             | IUP*S<br>****   | IFP*S<br>****   | INP*S<br>*****        | IHP*S           |
| SPACE TRACK   | 4.X.1.1.1   |             |                 |                 |                       |                 |
| SIGNAL INTERCEPT<br>COMMUNICATIONS                              |             |             | IUP*SC<br>****  | IFP*SC<br>****  | INP*SC<br>*****       | IHP*SC<br>****  |
| SPACE TRACK SIGNAL INTERCEPT COMMUNICATIONS SATELLITE DOWN-LINK | 4.X.1.1.1.1 | F           | SD              | S               | S<br>S <sub>1</sub> D | S               |
|   |             |             | IUP*SCD<br>**** | IFP*SCD<br>**** | INP*SCD<br>****       | IHP*SCD<br>**** |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION  | HIERARCHY   | F<br>R      | UNKNOWN         | FRIEND          | NEUTRAL         | HOSTILE         |
|--|-------------|-------------|-----------------|-----------------|-----------------|-----------------|
|  | SYMBOL ID   | A<br>M<br>E | SYM-ID          | SYM-ID          | SYM-ID          | SYM-ID          |
| SPACE TRACK  | 4.X.1.1.2   |             |                 |                 |                 |                 |
| SIGNAL INTERCEPT<br>RADAR                                      |             |             | IUP*SR<br>****  | IFP*SR<br>****  | INP*SR<br>****  | IHP*SR<br>****  |
| SPACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>DATA TRANSMISSION  | 4.X.1.1.2.1 | F           | S               | SDCT            | SDUT            | SDCT            |
|  |             |             | IUP*SRD<br>**** | IFP*SRD<br>**** | INP*SRD<br>**** | IHP*SRD<br>**** |
| SPACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>EARTH SURVEILLANCE | 4.X.1.1.2.2 | F           | SECS            | S<br>EC'S       | SECS            | SELS            |
|  |             |             | IUP*SRE<br>**** | IFP*SRE<br>**** | INP*SRE<br>**** | IHP*SRE<br>**** |
| SPACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>IFF (Transponder)  | 4.X.1.1.2.3 | F           | SILLE           | S               | S               | SILLE           |
|  |             |             | IUP*SRI<br>**** | IFP*SRI<br>**** | INP*SRI<br>**** | IHP*SRI<br>**** |
| SPACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MULTI-FUNCTION     | 4.X.1.1.2.4 | F           | S               | S               | S               | S               |
|  |             |             | IUP*SRM<br>**** | IFP*SRM<br>**** | INP*SRM<br>**** | IHP*SRM<br>**** |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| TABLE F-II. Signals interrigence (SIGNY) graphics (cont. d).   |             |             |                 |                 |                 |                 |  |  |
|--|-------------|-------------|-----------------|-----------------|-----------------|-----------------|--|--|
| DESCRIPTION  | HIERARCHY   | F<br>R      | UNKNOWN         | FRIEND          | NEUTRAL         | HOSTILE         |  |  |
|  | SYMBOL ID   | A<br>M<br>E | SYM-ID          | SYM-ID          | SYM-ID          | SYM-ID          |  |  |
| SPACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>TARGET ACQUISITION | 4.X.1.1.2.5 | F           | TCA             | STLA            | STUA            | STA             |  |  |
|  |             |             | IUP*SRT<br>**** | IFP*SRT<br>**** | INP*SRT<br>**** | IHP*SRT<br>**** |  |  |
| SPACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>SPACE              | 4.X.1.1.2.6 | F           | SP              | SP              | S               | STP             |  |  |
|  |             |             | IUP*SRS<br>**** | IFP*SRS<br>**** | INP*SRS<br>**** | IHP*SRS         |  |  |
| SPACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>UNKNOWN            | 4.X.1.1.2.7 | F           | S               | S               | SULLIN          | S               |  |  |
|  |             |             | IUP*SRU<br>**** | IFP*SRU<br>**** | INP*SRU<br>**** | IHP*SRU<br>**** |  |  |
| AIR TRACK  | 4.X.2       |             |                 |                 |                 |                 |  |  |
|  |             |             | IUA*<br>****    | IFA*<br>****    | INA*<br>****    | IHA*<br>****    |  |  |
| AIR TRACK<br>SIGNAL INTERCEPT                                  | 4.X.2.1     |             |                 |                 |                 |                 |  |  |
|  |             |             | IUA*S<br>****   | IFA*S           | INA*S           | IHA*S<br>****   |  |  |
| AIR TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS                | 4.X.2.1.1   |             |                 |                 |                 |                 |  |  |
|  |             |             | IUA*SC<br>****  | IFA*SC<br>****  | INA*SC<br>***** | IHA*SC<br>****  |  |  |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION  | HIERARCHY   | F<br>R<br>A | UNKNOWN         | FRIEND           | NEUTRAL                                | HOSTILE                               |
|--|-------------|-------------|-----------------|------------------|--|---------------------------------------|
|  | SYMBOL ID   | M<br>E      | SYM-ID          | SYM-ID           | SYM-ID                                 | SYM-ID                                |
| AIR TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS<br>CELLULAR/MOBILE           | 4.X.2.1.1.1 | F           | CM              | C_M              | C_M                                    | , , , , , , , , , , , , , , , , , , , |
|  |             |             | IUA*SCC<br>**** | IFA*SCC<br>****  | INA*SCC<br>****                        | IHA*SCC<br>****                       |
| AIR TRACK SIGNAL INTERCEPT COMMUNICATIONS OMNI-LINE-OF-SIGHT (LOS)           | 4.X.2.1.1.2 | F           |                 | O_L              | )<br> <br>  0<br> L                    | 2 / / / / O_L                         |
|  |             |             | IUA*SCO<br>**** | IFA*SCO<br>****  | INA*SCO<br>****                        | IHA*SCO<br>****                       |
| AIR TRACK SIGNAL INTERCEPT COMMUNICATIONS POINT-TO-POINT LINE-OF-SIGHT (LOS) | 4.X.2.1.1.3 | F           | P P             |                  | \\ \'\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |
|  |             |             | IUA*SCP<br>**** | IFA*SCP<br>****  | INA*SCP<br>****                        | IHA*SCP<br>****                       |
| AIR TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS<br>SATELLITE UP-LINK         | 4.X.2.1.1.4 | F           | S_U             | S_U              | S <sub>⊥</sub> U                       | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |
|  |             |             | IUA*SCS<br>**** | IFA*SCS<br>***** | INA*SCS<br>*****                       | IHA*SCS<br>*****                      |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR                                       | 4.X.2.1.2   |             |                 |                  |  |                                       |
|  |             |             | IUA*SR<br>****  | IFA*SR<br>****   | INA*SR<br>****                         | IHA*SR<br>****                        |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION  | R<br>A      | F<br>R<br>A | UNKNOWN          | FRIEND           | NEUTRAL          | HOSTILE          |
|--|-------------|-------------|------------------|------------------|------------------|------------------|
|  | SYMBOL ID   | M<br>E      | SYM-ID           | SYM-ID           | SYM-ID           | SYM-ID           |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>AIRBORNE INTERCEPT             | 4.X.2.1.2.1 | F           | ACTI             | ACLI             | ACTI             | ACT              |
|  |             |             | IUA*SRAI<br>**** | IFA*SRAI<br>**** | INA*SRAI<br>**** | IHA*SRAI<br>**** |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>AIRBORNE SEARCH AND<br>BOMBING | 4.X.2.1.2.2 | F           | ALB              | ALB              | AKB              | ALB              |
|  |             |             | IUA*SRAS<br>**** | IFA*SRAS<br>**** | INA*SRAS<br>**** | IHA*SRAS<br>**** |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>CONTROLLED INTERCEPT           | 4.X.2.1.2.3 | F           | CC               | CLI              | c C I            | C(L)             |
|  |             |             | IUA*SRC<br>****  | IFA*SRC<br>****  | INA*SRC<br>****  | IHA*SRC<br>****  |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>DATA TRANSMISSION              | 4.X.2.1.2.4 | F           | DUT              | DET              | DKT              | DCT              |
|  |             |             | IUA*SRD<br>****  | IFA*SRD<br>****  | INA*SRD<br>****  | IHA*SRD<br>****  |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION   | HIERARCHY   | F<br>R      | UNKNOWN          | FRIEND           | NEUTRAL          | HOSTILE          |
|---|-------------|-------------|------------------|------------------|------------------|------------------|
|   | SYMBOL ID   | A<br>M<br>E | SYM-ID           | SYM-ID           | SYM-ID           | SYM-ID           |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>EARLY WARNING       | 4.X.2.1.2.5 | F           | ELM              | ELW              | ECW              | ELW              |
|   |             |             | IUA*SRE<br>****  | IFA*SRE<br>****  | INA*SRE<br>****  | IHA*SRE<br>****  |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>FIRE CONTROL        | 4.X.2.1.2.6 | F           | FCC              | FCC              | FCC              | FCC              |
|   |             |             | IUA*SRF<br>***** | IFA*SRF<br>****  | INA*SRF<br>****  | IHA*SRF<br>****  |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>IFF (TRANSPONDER)   | 4.X.2.1.2.7 | F           | I CF             | ILF              | I CV F           | ILE              |
|   |             |             | IUA*SRI<br>****  | IFA*SRI<br>****  | INA*SRI<br>****  | IHA*SRI<br>****  |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MISSILE ACQUISITION | 4.X.2.1.2.8 | F           | MCA              | MCA              | MCA              | MLA              |
|   |             |             | IUA*SRMA<br>**** | IFA*SRMA<br>**** | INA*SRMA<br>**** | IHA*SRMA<br>**** |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION  | HIERARCHY    | F<br>R      | UNKNOWN          | FRIEND           | NEUTRAL          | HOSTILE          |
|--|--------------|-------------|------------------|------------------|------------------|------------------|
|  | SYMBOL ID    | A<br>M<br>E | SYM-ID           | SYM-ID           | SYM-ID           | SYM-ID           |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MISSILE DOWNLINK | 4.X.2.1.2.9  | F           | MCLD             | MYD              | MUD              | MUD              |
|  |              |             | IUASRMD<br>***** | IFASRMD<br>***** | INASRMD<br>***** | IHASRMD<br>***** |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MISSILE GUIDANCE | 4.X.2.1.2.10 | F           | MK'G             | MLG              | MCG              | MLG              |
|  |              |             | IUA*SRMG<br>**** | IFA*SRMG<br>**** | INA*SRMG<br>**** | IHA*SRMG<br>**** |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MISSILE TRACKING | 4.X.2.1.2.11 | F           | MCT              | MCT              | MCT              | MLT              |
|  |              |             | IUA*SRMT<br>**** | IFA*SRMT<br>**** | INA*SRMT<br>**** | IHA*SRMT<br>**** |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MULTI-FUNCTION   | 4.X.2.1.2.12 | F           | MKLF             | MUF              | MUF              | MUF              |
|  |              |             | IUA*SRMF<br>**** | IFA*SRMF<br>**** | INA*SRMF<br>**** | IHA*SRMF<br>**** |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION  | HIERARCHY    | F<br>R<br>A | UNKNOWN          | FRIEND           | NEUTRAL          | HOSTILE          |
|--|--------------|-------------|------------------|------------------|------------------|------------------|
|  | SYMBOL ID    | M<br>E      | SYM-ID           | SYM-ID           | SYM-ID           | SYM-ID           |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>TARGET ILLUMINATOR | 4.X.2.1.2.13 | F           | TUI              | TUI              | TUI              | TCI              |
|  |              |             | IUA*SRTI<br>**** | IFA*SRTI<br>**** | INA*SRTI<br>**** | IHA*SRTI<br>**** |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>TARGET ACQUISITION | 4.X.2.1.2.14 | F           | TUA              | TUA              | TCA              | TCA              |
|  |              |             | IUA*SRTA<br>**** | IFA*SRTA<br>**** | INA*SRTA<br>**** | IHA*SRTA<br>**** |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>TARGET TRACKING    | 4.X.2.1.2.15 | F           | TUT              | TUT              | TYT              | TUT              |
|  |              |             | IUA*SRTT<br>**** | IFA*SRTT<br>**** | INA*SRTT<br>**** | IHA*SRTT<br>**** |
| AIR TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>UNKNOWN            | 4.X.2.1.2.16 | F           | UKN              | ULN              | ULN              | ULN              |
|  |              |             | IUA*SRU<br>****  | IFA*SRU<br>****  | INA*SRU<br>****  | IHA*SRU<br>****  |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION   | HIERARCHY   | F<br>R<br>A | UNKNOWN         | FRIEND          | NEUTRAL         | HOSTILE                                 |
|---|-------------|-------------|-----------------|-----------------|-----------------|---|
|   | SYMBOL ID   | M<br>E      | SYM-ID          | SYM-ID          | SYM-ID          | SYM-ID                                  |
| GROUND TRACK  | 4.X.3       |             |                 |                 |                 |   |
|   |             |             | IUG*<br>****    | IFG*            | ING*<br>****    | IHG*<br>****                            |
| GROUND TRACK<br>SIGNAL INTERCEPT                                      | 4.X.3.1     |             |                 |                 |                 |   |
|   |             |             | IUG*S<br>****   | IFG*S           | ING*S<br>****   | IHG*S<br>****                           |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS                    | 4.X.3.1.1   |             |                 |                 |                 |   |
|   |             |             | IUG*SC<br>***** | IFG*SC          | ING*SC          | IHG*SC<br>*****                         |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS<br>CELLULAR/MOBILE | 4.X.3.1.1.1 | F           | G<br>C_M        | G<br>C_M        | G<br>C_M        | G S S S S S S S S S S S S S S S S S S S |
|   |             |             | IUG*SCC<br>**** | IFG*SCC<br>**** | ING*SCC<br>**** | IHG*SCC<br>****                         |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION   | HIERARCHY   | F<br>R      | UNKNOWN          | FRIEND           | NEUTRAL          | HOSTILE                                 |
|---|-------------|-------------|------------------|------------------|------------------|---|
|   | SYMBOL ID   | A<br>M<br>E | SYM-ID           | SYM-ID           | SYM-ID           | SYM-ID                                  |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS<br>OMNI-LINE-OF-SIGHT (LOS)              | 4.X.3.1.1.2 | F           | G<br>OLL         | G<br>OLL         | G<br>O_L         | G<br>O L                                |
|   |             |             | IUG*SCO<br>****  | IFG*SCO<br>****  | ING*SCO<br>****  | IHG*SCO<br>****                         |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS<br>POINT-TO-POINT<br>LINE-OF-SIGHT (LOS) | 4.X.3.1.1.3 | F           | G<br>P P         | G<br>F<br>P<br>P | G<br>P_P         | G \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ |
|   |             |             | IUG*SCP<br>***** | IFG*SCP<br>****  | ING*SCP<br>***** | IHG*SCP<br>****                         |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS<br>SATELLITE UP-LINK                     | 4.X.3.1.1.4 | F           | G<br>S_U         | G<br>S<br>S<br>U | G<br>S⊥U         | S                                       |
|   |             |             | IUG*SCS<br>****  | IFG*SCS<br>****  | ING*SCS<br>****  | IHG*SCS<br>****                         |
| GROUND TRACK SIGNAL INTERCEPT COMMUNICATIONS TROPOSPHERIC SCATTER                           | 4.X.3.1.1.5 | F           | G<br>Ť_S         | G<br>T S         | G<br>T_S         | G T S                                   |
|   |             |             | IUG*SCT<br>****  | IFG*SCT<br>****  | ING*SCT<br>****  | IHG*SCT<br>****                         |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR   | 4.X.3.1.2   |             |                  |                  |                  |   |
|   |             |             | IUG*SR<br>****   | IFG*SR<br>****   | ING*SR<br>****   | IHG*SR<br>****                          |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION   | HIERARCHY   | F<br>R<br>A | UNKNOWN          | FRIEND           | NEUTRAL          | HOSTILE          |
|---|-------------|-------------|------------------|------------------|------------------|------------------|
|   | SYMBOL ID   | M<br>E      | SYM-ID           | SYM-ID           | SYM-ID           | SYM-ID           |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>AIR TRAFFIC CONTROL      | 4.X.3.1.2.1 | F           | G<br>ACT<br>T    | G<br>ACT<br>T    | G<br>ACT         | G<br>A           |
|   |             |             | IU*GSRAT<br>**** | IFG*SRAT<br>**** | ING*SRAT<br>**** | IHG*SRAT<br>**** |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>ANTI-AIRCRAFT            | 4.X.3.1.2.2 | F           | G<br>ACA         | G<br>AC'A        | G<br>A A         | G A A            |
|   |             |             | IUG*SRAA         | IFG*SRAA         | ING*SRAA         | IHG*SRAA<br>**** |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>BATTLEFIELD SURVEILLANCE | 4.X.3.1.2.3 | F           | G<br>B<br>S      | G<br>BC'S        | G<br>BC S        | G S              |
|   |             |             | IUG*SRB<br>***** | IFG*SRB<br>***** | ING*SRB<br>***** | IHG*SRB<br>***** |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>COASTAL SURVEILLANCE     | 4.X.3.1.2.4 | F           | CS               | G<br>CC's        | G<br>C S         | C S              |
|   |             |             | IUG*SRCS<br>**** | IFG*SRCS<br>**** | ING*SRCS<br>**** | IHG*SRCS<br>**** |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION  | HIERARCHY   | F<br>R      | UNKNOWN          | FRIEND                | NEUTRAL          | HOSTILE          |
|--|-------------|-------------|------------------|-----------------------|------------------|------------------|
|  | SYMBOL ID   | A<br>M<br>E | SYM-ID           | SYM-ID                | SYM-ID           | SYM-ID           |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>CONTROLLED APPROACH | 4.X.3.1.2.5 | F           | GA               | G<br>C A              | G<br>C A         | G<br>C           |
|  |             |             | IUG*SRCA<br>**** | IFG*SRCA<br>****      | ING*SRCA<br>**** | IHG*SRCA<br>**** |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>DATA TRANSMISSION   | 4.X.3.1.2.6 | F           | G                | G<br>DCT              | G<br>DC T        | G D T            |
|  |             |             | IUG*SRD<br>****  | IFG*SRD<br>****       | ING*SRD<br>****  | IHG*SRD          |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>EARLY WARNING       | 4.X.3.1.2.7 | F           | GW               | G<br>E W              | G<br>E W         | G W              |
|  |             |             | IUG*SRE<br>****  | IFG*SRE<br>****       | ING*SRE<br>****  | IHG*SRE<br>****  |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>FIRE CONTROL        | 4.X.3.1.2.8 | F           | GC               | G<br>F <sup>C</sup> C | G<br>F C         | G<br>FC          |
|  |             |             | IUG*SRF<br>***** | IFG*SRF<br>****       | ING*SRF<br>****  | IHG*SRF<br>****  |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION  | HIERARCHY    | F<br>R      | UNKNOWN          | FRIEND           | NEUTRAL          | HOSTILE          |
|--|--------------|-------------|------------------|------------------|------------------|------------------|
|  | SYMBOL ID    | A<br>M<br>E | SYM-ID           | SYM-ID           | SYM-ID           | SYM-ID           |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>HEIGHT FINDING                              | 4.X.3.1.2.9  | F           | G H              | G<br>H F         | G<br>H F         | G<br>H           |
|  |              |             | IUG*SRH<br>****  | IFG*SRH<br>****  | ING*SRH<br>****  | IHG*SRH<br>****  |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>IDENTIFICATION FRIEND/FOE<br>(INTERROGATOR) | 4.X.3.1.2.10 | F           | G F              | G<br>I V         | G<br>I F         | G                |
|  |              |             | IUG*SRI<br>****  | IFG*SRI<br>****  | ING*SRI<br>****  | IHG*SRI<br>****  |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>METEOROLOGICAL (MILITARY)                   | 4.X.3.1.2.11 | F           | G                | G M E            | G<br>M E         | G E              |
|  |              |             | IUG*SRMM<br>**** | IFG*SRMM<br>**** | ING*SRMM<br>**** | IHG*SRMM<br>**** |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MISSILE ACQUISITION                         | 4.X.3.1.2.12 | F           | G A              | G<br>MCA         | G<br>M A         | G A              |
|  |              |             | IUG*SRMA         | IFG*SRMA<br>**** | ING*SRMA         | IHG*SRMA<br>**** |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION   | HIERARCHY    | F<br>R<br>A | UNKNOWN          | FRIEND           | NEUTRAL          | HOSTILE          |
|---|--------------|-------------|------------------|------------------|------------------|------------------|
|   | SYMBOL ID    | M<br>E      | SYM-ID           | SYM-ID           | SYM-ID           | SYM-ID           |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MISSILE GUIDANCE | 4.X.3.1.2.13 | F           | G M G            | G M G            | G<br>M G         | G M G            |
|   |              |             | IUG*SRMG<br>**** | IFG*SRMG<br>**** | ING*SRMG<br>**** | IHG*SRMG<br>**** |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MISSILE TRACKING | 4.X.3.1.2.14 | F           | G<br>M           | G<br>MCT         | G<br>M T         | G T              |
|   |              |             | IUG*SRMT<br>**** | IFG*SRMT<br>**** | ING*SRMT<br>**** | IHG*SRMT<br>**** |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MULTI-FUNCTION   | 4.X.3.1.2.15 | F           | G                | G<br>MCF         | G<br>M F         | G<br>M           |
|   |              |             | IUG*SRMF<br>**** | IFG*SRMF<br>**** | ING*SRMF<br>**** | IHG*SRMF<br>**** |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>SHELL TRACKING   | 4.X.3.1.2.16 | F           | G<br>S T         | SUT              | ST               | SCT              |
|   |              |             | IUG*SRS<br>****  | IFG*SRS<br>****  | ING*SRS<br>****  | IHG*SRS<br>****  |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION   | HIERARCHY    | F<br>R<br>A | UNKNOWN          | FRIEND           | NEUTRAL          | HOSTILE          |
|---|--------------|-------------|------------------|------------------|------------------|------------------|
|   | SYMBOL ID    | M<br>E      | SYM-ID           | SYM-ID           | SYM-ID           | SYM-ID           |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>TARGET ACQUISITION | 4.X.3.1.2.17 | F           | G                | G<br>T(LA)       | G<br>T C A       | G<br>T L         |
|   |              |             | IUG*SRTA<br>**** | IFG*SRTA ****    | ING*SRTA<br>**** | IHG*SRTA<br>**** |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>TARGET ILLUMINATOR | 4.X.3.1.2.18 | F           | G                | G<br>T/L'I       | G<br>T/ I        | G<br>T           |
|   |              |             | IUG*SRTI<br>**** | IFG*SRTI<br>**** | ING*SRTI<br>**** | IHG*SRTI<br>**** |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>TARGET TRACKING    | 4.X.3.1.2.19 | F           | GTT              | G<br>TCT         | G<br>T T         | G<br>T           |
|   |              |             | IUG*SRTT ****    | IFG*SRTT ****    | ING*SRTT         | IHG*SRTT<br>**** |
| GROUND TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>UNKNOWN            | 4.X.3.1.2.20 | F           | GN               | G N              | G<br>UC! N       | G<br>U           |
|   |              |             | IUG*SRU<br>****  | IFG*SRU ****     | ING*SRU<br>****  | IHG*SRU<br>****  |
| SEA SURFACE TRACK   | 4.X.4        |             |                  |                  |                  |                  |
|   |              |             | IUS*<br>****     | IFS*             | INS*             | IHS*<br>****     |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION  | HIERARCHY   | F<br>R      | UNKNOWN                                | FRIEND   | NEUTRAL          | HOSTILE  |
|--|-------------|-------------|--|--|------------------|--|
|  | SYMBOL ID   | A<br>M<br>E | SYM-ID                                 | SYM-ID   | SYM-ID           | SYM-ID   |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT  | 4.X.4.1     |             | IUS*S                                  | IFS*S  | INS*S            | IHS*S  |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS  | 4.X.4.1.1   |             |  |  |                  |  |
|  |             |             | IUS*SC<br>****                         | IFS*SC<br>****   | INS*SC<br>****   | IHS*SC<br>*****  |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS<br>CELLULAR/MOBILE                       | 4.X.4.1.1.1 | F           | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | \(\frac{\frac{1}{\finn}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}} | C_M              | C M  |
|  |             |             | IUS*SCC<br>****                        | IFS*SCC<br>****  | INS*SCC<br>***** | IHS*SCC<br>*****   |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS<br>OMNI-LINE-OF-SIGHT (LOS)              | 4.X.4.1.1.2 | F           | 0 L                                    | ) / / / O L  | 0_L<br>0_L       | \(\frac{1}{2}\frac{1}{ |
|  |             |             | IUS*SCO<br>****                        | IFS*SCO<br>****  | INS*SCO<br>****  | IHS*SCO<br>*****   |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS<br>POINT-TO-POINT<br>LINE-OF-SIGHT (LOS) | 4.X.4.1.1.3 | F           | P P                                    |  | \                | \(\frac{1}{2}\frac{1}{ |
|  |             |             | IUS*SCP<br>*****                       | IFS*SCP<br>*****   | INS*SCP<br>***** | IHS*SCP<br>*****   |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION  | HIERARCHY   | F<br>R<br>A | UNKNOWN          | FRIEND           | NEUTRAL          | HOSTILE          |
|--|-------------|-------------|------------------|------------------|------------------|------------------|
|  | SYMBOL ID   | M<br>E      | SYM-ID           | SYM-ID           | SYM-ID           | SYM-ID           |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS<br>SATELLITE UP-LINK | 4.X.4.1.1.4 | F           | SU               | SU               | S_U              | SU               |
|  |             |             | IUS*SCS<br>****  | IFS*SCS<br>****  | INS*SCS<br>****  | IHS*SCS<br>****  |
| SEA SURFACE TRACK  | 4.X.4.1.2   |             |                  |                  |                  |                  |
| SIGNAL INTERCEPT<br>RADAR  |             |             | IUS*SR<br>****   | IFS*SR<br>****   | INS*SR<br>****   | IHS*SR<br>****   |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>AIR TRAFFIC CONTROL        | 4.X.4.1.2.1 | F           | ALT              | ALT              | ACT              | ALT              |
|  |             |             | IUS*SRAT         | IFS*SRAT<br>**** | INS*SRAT<br>**** | IHS*SRAT<br>**** |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>ANTI-AIRCRAFT              | 4.X.4.1.2.2 | F           | ALA              | ALA              | ALA              | ALLA             |
|  |             |             | IUS*SRAA<br>**** | IFS*SRAA<br>**** | INS*SRAA<br>**** | IHS*SRAA<br>**** |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>CONTROLLED APPROACH        | 4.X.4.1.2.3 | F           | CLA              | CLA              | CKA              | CLA              |
|  |             |             | IUS*SRCA<br>**** | IFS*SRCA<br>**** | INS*SRCA         | IHS*SRCA<br>**** |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION  | HIERARCHY   | F<br>R        | UNKNOWN          | FRIEND           | NEUTRAL          | HOSTILE          |
|--|-------------|---------------|------------------|------------------|------------------|------------------|
|  | SYMBOL ID   | A<br>M<br>E   | SYM-ID           | SYM-ID           | SYM-ID           | SYM-ID           |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>CONTROLLED INTERCEPT | 4.X.4.1.2.4 | 4.X.4.1.2.4 F | CCLI             | CKI              | CKI              | CUI              |
|  |             |               | IUS*SRCI<br>**** | IFS*SRCI<br>**** | INS*SRCI<br>**** | IHS*SRCI<br>**** |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>DATA TRANSMISSION    | 4.X.4.1.2.5 | F             | DCT              | D/L T            | DKT              | DUT              |
|  |             |               | IUS*SRD<br>****  | IFS*SRD<br>****  | INS*SRD<br>****  | IHS*SRD<br>****  |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>EARLY WARNING        | 4.X.4.1.2.6 | F             | ELW              | ELW              | ECW              | E                |
|  |             |               | IUS*SRE<br>****  | IFS*SRE<br>****  | INS*SRE<br>****  | IHS*SRE<br>****  |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>FIRE CONTROL         | 4.X.4.1.2.7 | F             | FCC              | FCC              | FCC              | FUC              |
|  |             |               | IUS*SRF<br>****  | IFS*SRF<br>****  | INS*SRF<br>****  | IHS*SRF<br>****  |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION   | HIERARCHY    | F<br>R<br>A | UNKNOWN          | FRIEND           | NEUTRAL          | HOSTILE          |
|---|--------------|-------------|------------------|------------------|------------------|------------------|
|   | SYMBOL ID    | M<br>E      | SYM-ID           | SYM-ID           | SYM-ID           | SYM-ID           |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>HEIGHT FINDING                              | 4.X.4.1.2.8  | F           | HUF              | HUF              | HVF              | HUF              |
|   |              |             | IUS*SRH<br>****  | IFS*SRH<br>****  | INS*SRH<br>****  | IHS*SRH<br>****  |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>IDENTIFICATION FRIEND/FOE<br>(INTERROGATOR) | 4.X.4.1.2.9  | F           | ILLE             | IL F             | I/F              | ILLE             |
|   |              |             | IUS*SRI<br>****  | IFS*SRI<br>****  | INS*SRI<br>****  | IHS*SRI<br>****  |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>METEOROLOGICAL (MILITARY)                   | 4.X.4.1.2.10 | F           | MKLE             | MCLE             | MCE              | MLE              |
|   |              |             | IUS*SRMM<br>**** | IFS*SRMM<br>**** | INS*SRMM<br>**** | IHS*SRMM<br>**** |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MISSILE ACQUISITION                         | 4.X.4.1.2.11 | F           | MKLA             | MCA              | MCA              | MA               |
|   |              |             | IUS*SRMA<br>**** | IFS*SRMA<br>**** | INS*SRMA<br>**** | IHS*SRMA<br>**** |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION  | HIERARCHY    | F<br>R      | UNKNOWN          | FRIEND           | NEUTRAL          | HOSTILE           |
|--|--------------|-------------|------------------|------------------|------------------|-------------------|
|  | SYMBOL ID    | A<br>M<br>E | SYM-ID           | SYM-ID           | SYM-ID           | SYM-ID            |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MISSILE GUIDANCE | 4.X.4.1.2.12 | F           | MKG              | MCCG             | MCG              | MLG               |
|  |              |             | IUS*SRMG<br>**** | IFS*SRMG<br>**** | INS*SRMG<br>**** | IHS*SRMG<br>****  |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MISSILE TRACKING | 4.X.4.1.2.13 | F           | MKLT             | MCLT             | MCT              | MCT               |
|  |              |             | IUS*SRMT<br>**** | IFS*SRMT<br>**** | INS*SRMT<br>**** | IHS*SRMT<br>****  |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MULTI-FUNCTION   | 4.X.4.1.2.14 | F           | MKF              | MCF              | MCF              | MCF               |
|  |              |             | IUS*SRMF<br>**** | IFS*SRMF<br>**** | INS*SRMF<br>**** | IHS*SRMF<br>***** |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>SURFACE SEARCH   | 4.X.4.1.2.15 | F           | ses              | ses              | ses              | ses               |
|  |              |             | IUS*SRS<br>****  | IFS*SRS<br>****  | INS*SRS<br>****  | IHS*SRS<br>****   |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION  | HIERARCHY    | F<br>R<br>A | UNKNOWN           | FRIEND            | NEUTRAL           | HOSTILE          |
|--|--------------|-------------|-------------------|-------------------|-------------------|------------------|
|  | SYMBOL ID    | M<br>E      | SYM-ID            | SYM-ID            | SYM-ID            | SYM-ID           |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>TARGET ACQUISITION | 4.X.4.1.2.16 | F           | TCA               | TCA               | TKA               | TUA              |
|  |              |             | IUS*SRTA<br>****  | IFS*SRTA<br>****  | INS*SRTA<br>****  | IHS*SRTA<br>**** |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>TARGET ILLUMINATOR | 4.X.4.1.2.17 | F           | TUI               | TUI               | TKI               | TEL              |
|  |              |             | IUS*SRTI<br>****  | IFS*SRTI<br>****  | INS*SRTI<br>****  | IHS*SRTI<br>**** |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>TARGET TRACKING    | 4.X.4.1.2.18 | F           | TUT               | TUT               | TYT               | TUT              |
|  |              |             | IUS*SRTT<br>***** | IFS*SRTT<br>***** | INS*SRTT<br>***** | IHS*SRTT ****    |
| SEA SURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>UNKNOWN            | 4.X.4.1.2.19 | F           | ULLN              | ULN               | UCN               | UCL'N            |
|  |              |             | IUS*SRU<br>****   | IFS*SRU<br>****   | INS*SRU<br>****   | IHS*SRU<br>****  |
| SUBSURFACE TRACK   | 4.X.5        |             |                   |                   |                   |                  |
|  |              |             | IUU*<br>****      | IFU*<br>****      | INU*<br>****      | IHU*<br>****     |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION   | HIERARCHY   | F<br>R      | UNKNOWN          | FRIEND          | NEUTRAL   | HOSTILE         |
|---|-------------|-------------|------------------|-----------------|---|-----------------|
|   | SYMBOL ID   | A<br>M<br>E | SYM-ID           | SYM-ID          | SYM-ID  | SYM-ID          |
| SUB SURFACE TRACK<br>SIGNAL INTERCEPT   | 4.X.5.1     |             | IUU*S<br>****    | IFU*S<br>****   | INU*S   | IHU*S           |
| SUBSURFACE TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS  | 4.X.5.1.1   |             |                  |                 |   |                 |
|   |             |             | IUU*SC<br>****   | IFU*SC<br>****  | INU*SC<br>****  | IHU*SC<br>****  |
| SUBSURFACE TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS<br>OMNI-LINE-OF-SIGHT (LOS)              | 4.X.5.1.1.1 | F           |                  | 0_L             | 0 <u>L</u>  | 0<br>L          |
|   |             |             | IUU*SCO<br>***** | IFU*SCO<br>**** | INU*SCO<br>*****  | IHU*SCO<br>**** |
| SUBSURFACE TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS<br>POINT-TO-POINT<br>LINE-OF-SIGHT (LOS) | 4.X.5.1.1.2 | F           | PPP              | P_P             | \ \frac{1}{2} \ | <u>P</u>        |
|   |             |             | IUU*SCP<br>****  | IFU*SCP<br>**** | INU*SCP<br>****   | IHU*SCP<br>**** |
| SUBSURFACE TRACK<br>SIGNAL INTERCEPT<br>COMMUNICATIONS<br>SATELLITE UP-LINK                     | 4.X.5.1.1.3 | F           | S_U              | SU              | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\  | S               |
|   |             |             | IUU*SCS<br>****  | IFU*SCS<br>**** | INU*SCS<br>****   | IHU*SCS<br>**** |
| SUBSURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR   | 4.X.5.1.2   |             |                  |                 |   |                 |
|   |             |             | IUU*SR<br>****   | IFU*SR<br>****  | INU*SR<br>****  | IHU*SR<br>****  |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION   | HIERARCHY   | F<br>R      | UNKNOWN         | FRIEND          | NEUTRAL         | HOSTILE         |
|---|-------------|-------------|-----------------|-----------------|-----------------|-----------------|
|   | SYMBOL ID   | A<br>M<br>E | SYM-ID          | SYM-ID          | SYM-ID          | SYM-ID          |
| SUBSURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>DATA TRANSMISSION  | 4.X.5.1.2.1 | F           | DCTT            | DUT             | DUT             | DUT             |
|   |             |             | IUU*SRD<br>**** | IFU*SRD<br>**** | INU*SRD<br>**** | IHU*SRD<br>**** |
| SUBSURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>EARLY WARNING      | 4.X.5.1.2.2 | F           | ECW             | ECW             | E               | ELM             |
|   |             |             | IUU*SRE<br>**** | IFU*SRE<br>**** | INU*SRE<br>**** | IHU*SRE<br>**** |
| SUBSURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>MULTI-FUNCTION     | 4.X.5.1.2.3 | F           | MUF             | MLF             | MUF             | MUF             |
|   |             |             | IUU*SRM<br>**** | IFU*SRM<br>**** | INU*SRM<br>**** | IHU*SRM<br>**** |
| SUBSURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>SURFACE SEARCH     | 4.X.5.1.2.4 | F           | SUS             | s( s            | s C S           | s( s            |
|   |             |             | IUU*SRS<br>**** | IFU*SRS<br>**** | INU*SRS<br>**** | IHU*SRS<br>**** |
| SUBSURFACE TRACK<br>SIGNAL INTERCEPT<br>RADAR<br>TARGET ACQUISITION | 4.X.5.1.2.5 | F           | TUA             | TCA             | TCA             | T(VA            |
|   |             |             | IUU*SRT<br>**** | IFU*SRT<br>**** | INU*SRT<br>**** | IHU*SRT<br>**** |

TABLE F-II. Signals Intelligence (SIGINT) graphics (cont'd).

| DESCRIPTION                                     | HIERARCHY | F<br>R      | UNKNOWN         | FRIEND         | NEUTRAL         | HOSTILE         |
|---|-----------|-------------|-----------------|----------------|-----------------|-----------------|
|   | SYMBOL ID | A<br>M<br>E | SYM-ID          | SYM-ID         | SYM-ID          | SYM-ID          |
| SUBSURFACE TRACK SIGNAL INTERCEPT RADAR UNKNOWN | F         | ULLN        | UCIN            | ULN            | ULN             |                 |
|   |           |             | IUU*SRU<br>**** | IFU*RU<br>**** | INU*SRU<br>**** | IHU*SRU<br>**** |